

REMARKS

Claims 1-18 are pending in this application. None of the claims are amended.

Claims 1-3, 5, 7-11 and 13-18 are rejected as being anticipated by U.S. patent 4,867,050 ('050). Claims 4, 6 and 12 are rejected as being obvious over '050. Applicant respectfully disagrees with the Examiner and presents the following argument with respect to the patentability of the claims over '050, as well as additional remarks on the patentability of these claims.

As to claim 1, the Examiner noted in his Office Action that '050 shows all the claimed limitations of the present invention.

US'050 describes and illustrates a combustion chamber (14) that is partially encompassed by a shield (51) and completely encompassed by an outer housing (11). As shown in Fig 1, the housing (11) has walls that extend vertically and parallel with respect to the walls of the combustion chamber (14). As also shown in Fig. 1 and described on column 3, lines 59 to 62, the upper heat shields (51, 52) have an inverted frusto-conical shape and surround the secondary combustion zone (34), which is located above the combustion chamber in the upper portion of the housing (11). The angled walls of the shield (51) extend from above the upper perimeter of the combustion chamber (14) to midway down the combustion chamber (14).

In stark contrast, claim 1 defines the present invention as including an inverted frustum casing and a burner with a side wall section, "said side wall section of the burner spanning the height of the [inverted frustum] casing such that most of the thermal energy emitted by the combustion chamber radiates radially toward the slanted side wall section of the casing".

US'050 does not describe or suggest that its combustion chamber (14), (equivalent to the burner (70) of the present invention, see Fig 3) spans the height of the inverted frustum shield (51) walls (equivalent to the inverted frustum casing (10) walls of the present invention, see Fig 3).

For these reasons, it is submitted that claim 1, as well as its dependent claims 2 -18, are now not anticipated by US'050.

Applicants also submit that claims 4, 6 and 12, which depend from claim 1 are non-obvious with respect to US'050, in light of the state of art or any prior art reference of record.

Applicants have taken note of the Examiner's statements under the heading "Prior Art" on page 5 of the Office Action, where he notes that other prior art references are considered "pertinent to the applicant's disclosure."

Applicants thus refer to the positive opinion of the International Preliminary Examination Authority in regard to the corresponding international PCT application, and present the following arguments in support of the claims' non obviousness over the prior art of record including US'050 as well as documents WO 99/07127 (hereinafter referred to as WO'267) and WO 01/22854 (hereinafter referred to as WO'854).

Claim 1 presently includes the feature of a ventilation system that comprises the blower, a pressurized air chamber located downstream of the blower, and an air intake tube having an open top end secured to the air intake of the air chamber and an open bottom, and adapted to be connected to the outlet end of the pressurized air chamber.

This feature presents the advantage of providing efficient air flow from the blower through the air intake tube to the air chamber. Such a continuous system allows avoiding a loss of air and thus increases combustion efficiency.

The feature of the air intake tube being secured to the air intake of the burner further presents the advantage of providing a more stable construction by preventing the burner from being misplaced over the ventilation system or from tipping once installed in the casing.

Furthermore, claim 1 includes the feature that the side wall section of the casing extends at an angle ranging from about 135° to about 110° with respect to the base wall of the casing. As explained, for example, in paragraph [0045] of the present application, such a slant in the side wall section (40) combined with an inner surface (50) made of a material capable of reflecting radiant thermal energy allows for efficient upward reflection of the radiant thermal energy emitted from the side wall section (74) of the centrally located burner (70).

Indeed, the above-mentioned features in claim 1 of the present invention distinguish the barbecue cooking device of the present invention from the devices disclosed in the prior art of record.

As was pointed out during the International Preliminary Examination, documents WO'267 and WO'854 cannot be combined to render claim 1 obvious.

WO'267 discloses a grill assembly (12) comprising a housing (30) including a cooking surface (32), sidewalls (34) skirting the cooking surface (32) and a bottom wall (36) including an inlet (38) adapted to be sealingly connected to a source of heat to prevent heat loss and to promote collection of the heat in the housing (30). WO'267 further discloses a burner (14) mounted on a dome-shaped member (79) set on the bottom wall (17) of the container (16). The dome-shaped member (79) with the bottom wall (17) of the container (16) define an air-receiving chamber (70) devised to provide air in the combustion chamber (60) of the burner for the combustion of a fuel therein. One disadvantage encountered with such construction of an air chamber (70) defined by a dome-shaped member (79) is the poor air flow created between the air chamber (70) and the burner (60), which air flow is often not sufficient to carry on the combustion of the fuel.

The Examiner is also invited to refer to Fig 1 or 2 of WO'267 where it can be appreciated that the sidewalls (18) of the casing disclosed in this document are slanted at not more than 100° with respect to the base wall of the casing. Consequently, the radiation emitted from the burner can hardly be reflected upwards towards the grill.

Furthermore, the Examiner will note that WO'267 does not disclose a burner having its sidewall section spanning the height of the casing. Consequently, such construction does not provide an efficient or optimum use of the energy/heat generated by the burner.

Finally, the grill assembly of WO'267 does not present an air intake tube secured to the air chamber of the burner, and thus lacks the advantage mentioned above of providing a more stable construction by preventing the burner from being misplaced over the ventilation system or from tipping once installed in the casing.

In brief, the grill assembly described in this prior art document presents the following problems:

- 1) it does not provide for an efficient air flow from the blower to the air chamber;
- 2) it does not provide for an optimization of the reflection level of thermal radiations by the burner toward the grill; and
- 3) it does not provide for a stable burner.

With regard to WO'854, the Examiner is kindly invited to refer to Fig 1 of WO'854 which clearly depicts that the cooking apparatus includes a dish (28), also referred as a holding

means, which seats onto the edges of an aperture provided at the bottom of the combustion chamber (18).

As can also be noted, the dish (28) does not span the height of the combustion chamber (18).

Moreover, Fig 1 of WO'854 shows that the air inlet (58) allows air to be drawn into the combustion chamber via the air reservoir (36) and through the bores (46). As can be appreciated, there is no free flowing opening between the air intake and the combustion chamber.

As mentioned hereinabove, US'050 discloses a frustum casing only partially spanning adjacent to the combustion chamber, which does not allow much of the radiant thermal energy to be well directed toward the grill. There is no suggestion in US'050 to include the very advantageous feature of the frustum casing spanning the height of the burner.

In summary, the barbecue cooking device defined in claim 1 overcomes the above problems 1) to 3) of the closest prior art by including the following features:

a) the burner located inside the casing with its side wall section spanning the height of the casing (this feature overcomes problem 2) identified above);

b) an air intake tube having an open top end secured to the air intake of the air chamber and an open bottom end adapted to be connected to the outlet end of the pressurized air chamber (this feature overcomes problems 1) and 3) identified above); and

c) the side wall section of the casing extends at an angle ranging from about 135° to about 110° with respect to the base wall of the casing (this feature overcomes problem 2) identified above).

In other words, thanks to the synergistic effect of combining features a) to c), the barbecue cooking device of the present invention provides for an optimization of the reflection level of thermal radiations by the burner toward the grill. Moreover, since the burner spans the height of the casing, heat is more evenly distributed therein. Furthermore, the operative free flowing link between the air intake and the air chamber leads to a more efficient supply of air and thus better combustion since loss of air is thus minimized.

None of these features which improve and optimize the performance of the barbecue are disclosed or suggested in WO'267, WO'854 and WO'050. Accordingly, the applicant is of the

opinion that such features clearly distinguish the barbecue cooking device of the present invention from the devices disclosed in WO'267, WO'854 and WO'050. The characteristic features of the present invention solve the problem of optimization of heat generated by the burner as well as air loss between the air intake and the burner. It is also submitted that it would not have been obvious for a person in the art having no ingenuity and looking for a solution to the problem mentioned above to arrive easily at the solution proposed by the present invention. Certainly, that person would have to use a great amount of ingenuity to add features a) to c) mentioned above to a device known in the prior art.

What is more, there is no teaching, suggestion or motivation in WO'267, WO'854 or US'050, to combine all of the features in claim 1 to arrive at the present invention.

For these reasons, the Examiner is kindly requested to reconsider his rejection of the claims for obviousness in view of US'050, and to also consider the patentability of claim 1 over all of the prior art of reference, including WO'267 and WO'854.

It is thus submitted that claim 1, as well as claims 2-18 which depend thereon, are new and non obvious, and the Examiner is respectfully requested to acknowledge their patentability and issue a notice of allowance.

Prompt and favorable action is requested.

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Respectfully submitted,

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